

1636

RAW SEQUENCE LISTING

DATE: 04/19/2001

PATENT APPLICATION: US/09/435,274A

TIME: 14:24:55

Input Set : A:\Cpg.pto

Output Set: N:\CRF3\04192001\I435274A.raw

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3 <110> APPLICANT: Citovsky, Vitaly H
4   Rhee, Yoon
6 <120> TITLE OF INVENTION: Genetic Assay for Protein Nuclear Transport
8 <130> FILE REFERENCE: 001.00301
10 <140> CURRENT APPLICATION NUMBER: US 09/435,274A
11 <141> CURRENT FILING DATE: 1999-11-05
13 <150> PRIOR APPLICATION NUMBER: US 60/107,417
14 <151> PRIOR FILING DATE: 1998-11-06
16 <160> NUMBER OF SEQ ID NOS: 13
18 <170> SOFTWARE: PatentIn Ver. 2.1
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21 <211> LENGTH: 611
22 <212> TYPE: DNA
23 <213> ORGANISM: Unknown Organism
25 <220> FEATURE:
26 <223> OTHER INFORMATION: Description of Unknown Organism:bacterial
28 <220> FEATURE:
29 <223> OTHER INFORMATION: modified bacterial lexA
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33 cagacaggta tgccgccgac gcgtagcgaa atcgccgagc gtttggggtt cgttcccca 120
34 acgcggtga agaactctg aaggcgctgg cagcaaaagg cgttattgaa attgtttccg 180
35 ggcgcatcag cgggattcgt ctgttgacgg aagaggaaga aggggtgccg ctggtaggtc 240
36 gtgtggctgc cggtagaaca cttctggcgc aacagcatat tgaaggtcat talcagggtc 300
37 atccttccct attcaagcgg aatgctgatt tctgtgtcgc cgtcagcggg atgtcgatga 360
38 aagatatacg cattatggat ggtgacttgc tggcagtgc taaaactcag gatgtacgta 420
39 acggtcaggc cgttgtagca cgtattgatg acgaagtta cgttaagggc ctggaaaaac 480
40 agggcaataa atcgcaactg ttgccagaaa atagcgagtt taaaccaatt gtctgtgacc 540
41 ttcgtcagca gagcttcacc attgaagggc tggcggttgg ggttatcgc aacggcgact 600
42 ggcgggaatt c                                     611
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46 <211> LENGTH: 204
47 <212> TYPE: PRT
48 <213> ORGANISM: Unknown Organism
50 <220> FEATURE:
51 <223> OTHER INFORMATION: Description of Unknown Organism:bacterial
53 <220> FEATURE:
54 <223> OTHER INFORMATION: modified bacterial lexA
56 <400> SEQUENCE: 2
57 Met Lys Ala Leu Thr Ala Arg Gln Gln Glu Val Phe Asp Leu Ile Arg
58   1           5           10           15
60 Asp His Ile Ser Gln Thr Gly Met Pro Pro Thr Arg Ala Glu Ile Ala
61           20           25           30
63 Gln Arg Leu Gly Phe Arg Ser Pro Asn Ala Ala Glu Glu His Leu Lys
64           35           40           45
66 Ala Leu Ala Arg Lys Gly Val Ile Glu Ile Val Ser Gly Ala Ser Arg
67   50           55           60

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69 Gly Ile Arg Leu Leu Gln Glu Glu Glu Gly Leu Pro Leu Val Gly
70 65 70 75 80
72 Arg Val Ala Ala Gly Glu Pro Leu Leu Ala Gln Gln His Ile Glu Gly
73 85 90 95
75 His Tyr Gln Val Asp Pro Ser Leu Phe Lys Pro Asn Ala Asp Phe Leu
76 100 105 110
78 Leu Arg Val Ser Gly Met Ser Met Lys Asp Ile Gly Ile Met Asp Gly
79 115 120 125
81 Asp Leu Leu Ala Val His Lys Thr Gln Asp Val Arg Asn Gly Gln Val
82 130 135 140
84 Val Val Ala Arg Ile Asp Asp Glu Val Thr Val Lys Gly Leu Glu Lys
85 145 150 155 160
87 Gln Gly Asn Lys Val Glu Leu Leu Pro Glu Asn Ser Glu Phe Lys Pro
88 165 170 175
90 Ile Val Val Asp Leu Arg Gln Gln Ser Phe Thr Ile Glu Gly Leu Ala
91 180 185 190
93 Val Gly Val Ile Arg Asn Gly Asp Trp Leu Glu Phe
94 195 200

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97 <210> SEQ ID NO: 3

98 <211> LENGTH: 7

99 <212> TYPE: PRT

100 <213> ORGANISM: Simian virus 40

102 <220> FEATURE:

103 <223> OTHER INFORMATION: large T antigen NLS

105 <400> SEQUENCE: 3

106 Pro Lys Lys Lys Arg Lys Val

107 1 5

110 <210> SEQ ID NO: 4

111 <211> LENGTH: 17

112 <212> TYPE: PRT

113 <213> ORGANISM: Xenopus sp.

115 <220> FEATURE:

116 <223> OTHER INFORMATION: nucleoplasmin NLS

118 <220> FEATURE:

119 <221> NAME/KEY: VARIANT ✓

120 <222> LOCATION: (3)..(13)

121 <223> OTHER INFORMATION: Residues 3 to 13 in Xenopus laevis are Pro Ala Ala

122 <223> OTHER INFORMATION: Thr Lys Lys Ala Gly Gln Ala Lys

124 <400> SEQUENCE: 4

W--> 125 Lys Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Lys Lys Lys

126 1 5 10 15

128 Leu

132 <210> SEQ ID NO: 5

133 <211> LENGTH: 9

134 <212> TYPE: PRT

135 <213> ORGANISM: Human immunodeficiency virus type 1

137 <220> FEATURE:

138 <223> OTHER INFORMATION: Rev protein NES

140 <400> SEQUENCE: 5

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142 1 5
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151 <223> OTHER INFORMATION: Description of Artificial Sequence:nuclear export
152 signal
154 <220> FEATURE:
155 <223> OTHER INFORMATION: mutated NES of pNEAM10
157 <400> SEQUENCE: 6
158 Leu Pro Pro Asp Leu Arg Leu Thr Leu
159 1 5
162 <210> SEQ ID NO: 7
163 <211> LENGTH: 4
164 <212> TYPE: PRT
165 <213> ORGANISM: Artificial Sequence
167 <220> FEATURE:
168 <223> OTHER INFORMATION: Description of Artificial Sequence:nuclear export
169 signal
171 <220> FEATURE:
172 <223> OTHER INFORMATION: residual NES of pNEARev(delta)3
174 <400> SEQUENCE: 7
175 Leu Pro Pro Leu
176 1
179 <210> SEQ ID NO: 8
180 <211> LENGTH: 26
181 <212> TYPE: DNA
182 <213> ORGANISM: Artificial Sequence
184 <220> FEATURE:
185 <223> OTHER INFORMATION: Description of Artificial Sequence:primer sequence
187 <220> FEATURE:
188 <223> OTHER INFORMATION: GAL4 primer
190 <400> SEQUENCE: 8
191 gggaattcaa ttttaatacaa agtggg 26
194 <210> SEQ ID NO: 9
195 <211> LENGTH: 27
196 <212> TYPE: DNA
197 <213> ORGANISM: Artificial Sequence
199 <220> FEATURE:
200 <223> OTHER INFORMATION: Description of Artificial Sequence:primer sequence
202 <220> FEATURE:
203 <223> OTHER INFORMATION: GAL4 primer
205 <400> SEQUENCE: 9
206 gacggatccc cgggtattcg atctctt 27
209 <210> SEQ ID NO: 10
210 <211> LENGTH: 29
211 <212> TYPE: DNA

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212 <213> ORGANISM: Artificial Sequence
214 <220> FEATURE:
215 <223> OTHER INFORMATION: Description of Artificial Sequence:primer sequence
217 <220> FEATURE:
218 <223> OTHER INFORMATION: GAL4 primer
220 <400> SEQUENCE: 10
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224 <210> SEQ ID NO: 11
225 <211> LENGTH: 27
226 <212> TYPE: DNA
227 <213> ORGANISM: Artificial Sequence
229 <220> FEATURE:
230 <223> OTHER INFORMATION: Description of Artificial Sequence:primer sequence
232 <220> FEATURE:
233 <223> OTHER INFORMATION: GAL4 primer
235 <400> SEQUENCE: 11
236 gacggatccc cgggtattcg atctctt           27
239 <210> SEQ ID NO: 12
240 <211> LENGTH: 25
241 <212> TYPE: DNA
242 <213> ORGANISM: Artificial Sequence
244 <220> FEATURE:
245 <223> OTHER INFORMATION: Description of Artificial Sequence:primer sequence
247 <220> FEATURE:
248 <223> OTHER INFORMATION: mutant lexA primer
250 <400> SEQUENCE: 12
251 ccgttaaggg cctggaaaaa caggg           25
254 <210> SEQ ID NO: 13
255 <211> LENGTH: 26
256 <212> TYPE: DNA
257 <213> ORGANISM: Artificial Sequence
259 <220> FEATURE:
260 <223> OTHER INFORMATION: Description of Artificial Sequence:primer sequence
262 <220> FEATURE:
263 <223> OTHER INFORMATION: selection lexA primer
265 <400> SEQUENCE: 13
266 gtgactggtg aggcctcaac caagtc           26

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VERIFICATION SUMMARY

DATE: 04/19/2001

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Input Set : A:\Cpg.pto

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L:125 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4